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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/243,237 02/02/99 MUKHOPADHYAY D MDO-2471-D1

020793
R REAMS GOODLOE JR
10725 SE 256TH STREET
SUITE 3
KENT WA 98031-6426

IM22/1006

EXAMINER

FORTUNA, A

ART UNIT.

PAPER NUMBER

1723

DATE MAILED:

10/06/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.

09/243,237

Applicant(s)

MUKHOPADHYAY

Examiner

A. FORTUNA

Group Art Unit

1723

☒ Responsive to communication(s) filed on 2/2/99☐ This action is FINAL.☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.☒ Claim(s) 1-10 is/are rejected.☐ Claim(s) _____ is/are objected to.☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.☐ The drawing(s) filed on _____ is/are objected to by the Examiner.☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.☐ The specification is objected to by the Examiner.☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been☐ received.☐ received in Application No. (Series Code/Serial Number) _____☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____☐ Interview Summary, PTO-413☐ Notice of Draftsperson's Patent Drawing Review, PTO-948☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. The numbering of claims is not accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 122-125 and 93-98 been renumbered 1-4, and 5-10 respectively.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 9, 81 and 115 of U.S. Patent No. 5,925,255.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of claim 1 (non renumbered claim 122) overlap the limitations of the claims in the patent.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

5. (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.
6. Claims 1, 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Collentro et al (5,766,479, and 5,670,053). Collentro et al ('479)discloses a process of treating water including alkalinity, hardness and ionized species by pretreating the water stream, increasing the pH by adding an alkali, to a pH from 7.5 to 10.5 and separating the feed stream by membrane separation, e.g reverse osmosis (Figures, column 5, lines 20-68, column 6, lines 1-68, columns 7-9, and column 10, lines 1-65). The pretreatment removes hardness and alkalinity prior to the reverse osmosis membrane treatment, e.g. sodium, potation magnesium, bicarbonate, sulfates, etc (column 5, lines 50-68, column 6, lines 1-40), activated carbon and ion exchange are also suggested for removing organics, such as humic acid and ionic species (column 6, lines 41-55). Using more than one reverse osmosis unit, using sodium hydroxide or conventional bases is also disclosed, and removing C02 by ionization at high pH and rejecting it with the RO membrane is also disclosed (column 8, lines 29-39). Regarding claim 3, removing hardness and alkalinity by a single unit is disclosed, e.g. by nanofiltration. Regarding claim 13, silica is also disclosed (column 8, lines 45-49). Reference '053 discloses the same claim limitation (entire disclosure). Regarding claim 8, reference '479 discloses water substantially free of silica (column 8, lines 45-50).

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7. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tao et al.(5,250,185). Tao et al. clearly discloses water having the boron and TOC contained in the claims above (column 4, lines 6-67, column 7, lines 9-68, column 8, lines 13).

Product by process claims are products. Therefore, the rejection over Tao et al is proper.

9. (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 2-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Bhave et al. (5,645,727). Reference '727 clearly discloses purified water with the degree of purity claimed and within the boron, silica, virus, bacteria and TOC claimed in the claims above (column 17, table III, column 16, lines 23-26, or entire disclosure).

11. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 2-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al.(5,573,662). Water having the TOC level claimed is disclosed by '661 (column 3, lines 30-53).

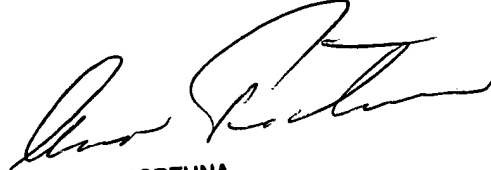
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Fortuna whose telephone number is (703) 308-3857.

Facsimile No. (703)305-7718.

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ANA FORTUNA
PRIMARY EXAMINER
GROUP 1800
1723

Ana Fortuna

September 29, 1999